

**REMARKS**

In a Restriction Requirement mailed September 24, 2004, the Examiner imposed a five-way restriction to original Claims 1-35. In Response, Applicants elected to prosecute Claims 1-20 of Group I, amended Claim 25, and canceled Claim 31. In the Office Action mailed December 17, 2004, the Examiner has raised the following issues, which are set forth by number below in the order they are addressed herein:

- 1) Claim 17 is objected to under 37 CFR 1.75(c), as allegedly being of improper dependent form;
- 2) Claims 1, 2, 18 and 19 stand rejected under 35 USC § 112, second paragraph, as allegedly being indefinite;
- 3) Claims 1-12 and 16-20 stand rejected under 35 USC § 102(e), as allegedly being anticipated by US Patent Application Publication No. 2003/0138769 to Birkett (Birkett);
- 4) Claims 1-12 and 16-20 stand rejected under 35 USC § 103(a), as allegedly being unpatentable over Pumpens *et al.*, *Intervirology*, 38:63-74, 1995 (Pumpens); and
- 5) Claim 13 stands rejected under 35 USC § 103(a), as allegedly being unpatentable over Pumpens, in view of Zlotnick *et al.*, *Proc Natl Acad Sci USA*, 94:9556-9561, 1997 (Zlotnick).

Applicants have amended the Specification to correct a clerical error. In particular, Applicants have amended the Summary to recite “the amino acid sequence set forth in SEQ ID NO:58, the amino acid sequence comprising a loop region and further comprising from 1 to 100 amino acids at the carboxy end of residue V<sup>149</sup>. Support for this amendment is provided by Figure 42 panel C depicting the amino acid sequence of SEQ ID NO:58 having a valine rather than an isoleucine at position 149.

In addition, Applicants hereby amend Claims 1-3, 6-8, 12-15 and 18, cancel Claims 5, 20 and 31-35, and enter new Claims 36-47, in order to further the prosecution of the present application and Applicants' business interests, yet without acquiescing to the Examiner's arguments. Applicants reserve the right to prosecute the original, similar, or broader claims in

one or more future application(s). These amendments do not introduce new matter and are not intended to narrow the scope of any of the claims within the meaning of *Festo*.<sup>1</sup>

**1) The Claims Are Proper**

The Examiner has objected to Claim 17 under 37 CFR 1.75(c), as allegedly being of improper dependent form for failing to limit the subject matter of the claim from which it depends. In particular, the Examiner states:

[t]his claim is objected to for two reasons. First, claim 1 refers only to SEQ ID NO:38 while claim 17 would include other sequences as well. Second, claim 1 indicates that a heterologous antigen must be present while claim 17 removes this limitation (Office Action, page 3).

Applicants respectfully disagree that Claim 17 is improper. The Examiner's first objection is that claim 17 "would include other sequences as well." Applicants remind the Examiner that Claim 1 recites a composition "comprising" particular sequences. This means this composition includes these particular sequences, *but may contain additional components*. An example of one of these additional components is shown in Claim 17. Claim 17, since it is a dependent claim, includes the particular sequences of Claim 1 and further contains particular woodchuck hepatitis virus core antigen. There is nothing improper about specifying that the composition of Claim 1, which contains particular sequences, *also* contains *additional* components, such as those recited in Claim 17. This is well-established dependent claim practice.

The Examiner's second objection is that Claim 17 somehow removes the requirement that a heterologous antigen must be present in the composition. Applicants submit that the Examiner is incorrect. Claim 17 is *dependent* on Claim 1 (i.e. it recites "the composition of Claim 1), and therefore includes all of the elements of Claim 1, including the heterologous antigen. In other words, Claim 17 includes the heterologous antigen of Claim 1, and further limits this composition by *also* requiring a woodchuck hepatitis virus core antigen. Again, this is well-established dependent claim practice.

In light of the above, Applicants submit that Claim 17 is proper as written, and therefore the Examiner's objection should be withdrawn.

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<sup>1</sup> *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 122 S.Ct. 1831, 1838, 62 USPQ2d 1705, 1710 (2002).

## **2) The Claims Are Definite**

The Examiner has rejected Claims 1, 2, 18 and 19 under 35 USC § 112, second paragraph, as allegedly being indefinite. The Examiner states:

Claim 1 ends with the phrase “said amino acid sequence comprising a loop region.” The meaning of this phrase is not clear. ... Claim 2 indicates that the antigen is inserted in the loop region. Again, without knowing the identity of the loop, it is unclear where the insert is going (Office Action, pages 3 and 4).

Applicants respectfully disagree that the claims are unclear. Nonetheless Applicants have amended Claims 1, 2, 6-8, and canceled Claims 5 and 20, in order to further the prosecution of the present application and Applicants' business interests, yet without acquiescing to the Examiner's arguments, and while reserving the right to prosecute the original, similar, or broader claims in one or more future application(s). Specifically, Applicants have removed the phrase “said amino acid sequence comprising a loop region” from Claim 1, and any reference to a loop region from Claims 6 and 7. In addition, Applicants have amended Claims 2 and 8 to recite that “said heterologous antigen is inserted at a position within a loop region comprising residues 76 to 82 of SEQ ID NO:38. Support for this amendment is found for instance in the description, which teaches that a “number of internal insertions inside the loop region (positions 76-82), as well as internal insertions outside the loop region were tolerated” (Specification, at page 49, lines 9 and 10). Additional support is found for example in the definitions section, disclosing “in reference to WHcAg, the term ‘within the loop’ refers to residues at positions 76 to 82 of the wild type sequence, while the term ‘outside the loop’ refers to residues amino terminal to residue 76 and carboxy terminal to residue 82” (Specification, at page 36, lines 19-21).

The Examiner has also specifically rejected Claims 18 and 19, stating that:

claim [1] can be read as a nucleic acid sequence linked to an amino acid sequence. Is this what applicant intended? In the interest of compact prosecution the claim is being interpreted as a nucleic acid sequence encoding said heterologous antigen linked to SEQ ID NO:38. ... Due to the problems in claim 18 it is not clear what nucleic acid sequence Applicant is referring to in claim 19. ... In the interest of compact prosecution the claim is being interpreted as specifying an expression vector comprising the nucleic acid sequence encoding said heterologous antigen linked to SEQ ID NO:38 (Office Action, pages 4 and 5).

Applicants acknowledge that the Examiner's interpretations of Claims 18 and 19 are correct. Even so, Applicants have amended Claim 18, in order to further the prosecution of the present application and Applicants' business interests, yet without acquiescing to the Examiner's arguments, and while reserving the right to prosecute the original, similar, or broader claims in one or more future application(s). In particular, Applicants have amended Claim 18 to be an independent claim reciting a "nucleic acid sequence encoding an antigenic hybrid woodchuck hepatitis virus core antigen, comprising a heterologous antigen inserted within the amino acid sequence set forth in SEQ ID NO:38." Support for this amendment is found for instance in the definitions section, which indicates that the term hybrid "refers to a fusion protein of the hepadna virus core antigen and an unrelated antigen" (Specification, at page 35, lines 3-12).

Applicants assert that the amended claims are definite and accordingly requests that these rejections be withdrawn.

### **3) The Claims Are Novel**

The Examiner has rejected Claims 1-12 and 16-20 under 35 USC § 102(e), as allegedly anticipated by US Patent Application Publication No. 2003/0138769 to Birkett (Birkett). The Examiner states that:

[Birkett] teaches immunogenic HBc chimer particles. At paragraph [0154] it is indicated that although the human ayw subtype is the preferred sequence, the core sequence from woodchuck hepatitis virus can be used as well. The sequence is identified in that paragraph as SEQ ID No. 251 ... [It] is 100% identical to SEQ ID No. 38 by sequence alignment. Therefore claims 1, 12, 17 and 20 are anticipated. As to claims 2-7 the various insertion sites are known in the art. ... As to claim 13, [Birkett] teaches SEQ ID No. 38 with a C-terminal cysteine residue. ... As a final matter, it is asserted by the Examiner that it is widely recognized that woodchuck hepatitis B core antigen is recognized by those of ordinary skill in the art as largely analogous to and/or substitutable for human hepatitis B core antigen, as well as core antigen derived from other species. (Office Action, pages 5-7).

Applicants respectfully disagree that Birkett anticipates the claims. The Examiner is respectfully reminded that:

[t]he disclosure in an assertedly anticipating reference must provide an enabling disclosure of the desired subject matter; mere naming or description of the subject

matter is insufficient, if it cannot be produced without undue experimentation (MPEP 2121.01).<sup>2</sup>

Applicants contend that Birkett fails to provide any working examples describing how to make or use a hybrid WHcAg particle comprising a heterologous antigen and that absent Applicants' disclosure undue experimentation is required to produce the claimed invention. Birkett simply states "[l]ess preferred still are the sequences of woodchuck and ground squirrel at aligned positions 1 through 149" (Birkett, paragraph 0154). Accordingly, Birkett was not in possession of non-human hepadnavirus core antigens and Birkett did not teach how to make or use a hybrid WHcAg particle comprising a heterologous antigen. Birkett's disclosure only amounts to an invitation to try. In contrast, Applicants believe they were the first to successfully prepare hybrid woodchuck hepatitis virus cores for use as antigens, immunogens and vaccines.

The Examiner is also reminded that:

[w]here a process for making the compound is not developed until after the date of invention, the mere naming of a compound in a reference, without more, cannot constitute a description of the compound (MPEP 2121.02).<sup>3</sup>

Applicants further contend that prior to development of the combinatorial technology provided in the present Application, a significant proportion of hybrid HBcAg (as well as WHcAg) cores could not be produced due to well-known problems in particle assembly (See, e.g., Jegerlehner *et al.*, *Vaccine*, 20:3104-3112, 2002 and Karpenko *et al.*, *Amino Acids*, 18:329-337, 2000 submitted to the Office on October 31, 2003 as references 17 and 94, respectively on Form PTO-1449). Furthermore, not all hybrid HBcAg and WHcAg cores can be expressed, let alone assemble to properly present a heterologous antigen to an antibody. Birkett clearly illustrates this point when listing twenty "epitopes that have failed to express when inserted between D78 and P79 (V2) in a HBc chimera" (Birkett, paragraph 0351 and Table 7). Similarly, Applicants have found that a truncated WHcAg having a Cys<sup>150</sup> carboxy-terminus did not assemble as hybrid particles when recombinantly expressed from multiple constructs: M epitope insert at position 74, CE

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<sup>2</sup> Referring to *Elan Pharm., Inc. v. Mayo Foundation for Medical and Education Research*, 346 F.3d 1051, 1054, 68 USPQ2d 1373, 1376 (Fed. Cir. 2003).

<sup>3</sup> Referring to *In re Hoeksema*, 399 F.2d 269, 158 USPQ 596 (CCPA 1968).

epitope insert at position 74, HV-2 epitope insert at position 75, HV-3 epitope insert at position 74, HV-3 epitope insert at position 75, HV-4 epitope at position 74, CD40L immune enhancer insert at the carboxy-terminus, and IM2(-) insert at position 78 (Specification, Table 13 on page 102). However, these epitopes were successfully expressed and assembled as hybrid WHcAg particles when alternative C-termini were used. Altering the insert position and/or C-terminus to rescue hybrid particle assembly is one example of the utility of the combinatorial technology disclosed in the present application. Neither Birkett, nor any of the other references cited by the Examiner provide this teaching. Furthermore, three HIV epitopes that could not be expressed and/or assembled using the HBcAg platform were successfully expressed on the WHcAg platform. Specifically, the WHcAg platform rescued the HIV4.1, HIV5.1 and HIV6.1 epitopes for which failures using HBcAg had been reported (Birkett, paragraph 0351, Table 7).

Nonetheless, while the art cited by the Examiner does not anticipate the claims, Applicants have amended Claims 1, 12 and 13, and added new Claims 36-47, in order to further the prosecution of the present application and Applicants' business interests, yet without acquiescing to the Examiner's arguments, and while reserving the right to prosecute the original, similar, or broader claims in one or more future application(s). In particular, Applicants have amended Claim 1 to recite an "antigenic composition" and "wherein said heterologous antigen and said amino acid sequence assemble as a hybrid particle." Support for these amendments is found for instance in the description, which teaches that:

all purified hybrid WHcAg particles are characterized for antigen expression at the B cell level by measuring the ability to bind polyclonal or mAbs specific for the WHcAg carrier and the peptidic, protein or PS insert. ... T cell antigenicity is determined by assessing the ability of the hybrid WHcAg particles to activate core-specific T cells *in vitro* (Specification, paragraph bridging pages 61 and 62).

Because Birkett has never made non-human hepadnavirus core antigens, Birkett cannot teach that such compositions are "antigenic," as now claimed, and Birkett cannot teach that "said heterologous antigen and said amino acid sequence assemble as a hybrid particle."

Applicants have also amended Claims 12 and 13 to indicate that the claimed invention does not comprise either a full length WHcAg with a wild type C-terminus (SEQ ID NO:2), or a truncated WHcAg having Arg<sup>150</sup> or Cys<sup>150</sup> carboxy-terminal residues. As the prior art fails to provide the requisite enablement, Claims 1-4, 6-11, and 16-19 are not anticipated. Likewise, since the prior art fails to describe all of the limitations of Claims 12-15 (*e.g.*, artificial C-terminus that is not R<sup>150</sup> or C<sup>150</sup>), these claims are also not anticipated by Birkett. Accordingly, Applicants respectfully request that these rejections be withdrawn.

Applicants also contend that new Claims 36-47 are novel. In particular, new Claims 36 and 37 are directed to “vaccines:”

a suspension of attenuated or killed microorganisms (bacteria, viruses, or rickettsiae), or of antigenic proteins derived from them, administered for the prevention, amelioration, or treatment of infectious diseases (Dorland's Illustrated Medical Dictionary).

Birkett provides no protection data and does not teach or suggest that non-human hepadnavirus core antigens can be used to prevent, ameliorate, or treat a disease. Accordingly, Birkett cannot anticipate or make obvious a claim that is limited by the term “vaccine.”

New Claims 38-41 are directed to compositions comprising a heterologous antigen or WHcAg sequence modified to be more acidic, and new Claims 42-47 are directed to compositions and vaccines comprising a heterologous antigen within a discrete isoelectric point (pI) range. Support for these claims is found for instance in Example 15, which discloses that:

positively charged inserts (*e.g.*, pI equal to or greater than 7.0) appear to adversely [affect] assembly of hybrid WHcAg or HBcAg particles. However, using the method and compositions described herein, the addition of acidic substitutions or linker residues was found to be useful for neutralizing the apparent destabilizing effect of positively charged inserts (high pH) on particle assembly (Specification, at page 109, lines 17-24).

Birkett never mentions the pI of a heterologous antigen nor does Birkett suggest that the pI of an insert has any influence on the assembly of a particle. Accordingly, Birkett cannot anticipate or make obvious a claim that is limited to a discrete pI range.

Thus, not only does Birkett fail to teach or suggest how to make and use non-human hepadnavirus core antigens, but Birkett also fails to teach or suggest how to make or use hybrid

WHcAg particles that are antigenic (reactive with antibodies or T cells) or that are suitable for use as vaccines (*e.g.*, prophylactic agents for preventing infection or spread of disease). Moreover, unlike the present invention of Claims 38-41 requiring modification of WHcAg by addition (*e.g.*, insertion or substitution) of at least one acidic amino acid, Birkett teaches the modification of HBcAg by the addition of basic lysine residues to the immunodominant loop of HBcAg (Birkett, Table 15 on page 42). Finally, in regard to Claims 42-47, Birkett fails to teach or suggest the desirability of hybrid hepatitis virus core particles comprising heterologous antigens having an acidic isoelectric point. In short, Birkett does not anticipate the claimed invention.

#### **4 & 5) The Claims Are Nonobvious**

The Examiner has rejected Claims 1-12 and 16-20 under 35 USC § 103(a), as allegedly unpatentable over Pumpens *et al.*, *Intervirology*, 38:63-74, 1995 (Pumpens), and has rejected Claim 13 over Pumpens in view of Zlotnick *et al.*, *Proc Natl Acad Sci USA*, 94:9556-9561, 1997 (Zlotnick). The Examiner states that:

Pumpens teaches that human hepatitis B virus core antigen shows strong conservation with hepatitis core antigen sequences from other species (see page 64, col. 2). In tables 1 through 3 of Pumpens a number of insertion sites are shown for heterologous antigens. These include, N-terminal, C-terminal and internal insertions. ... SEQ ID NO:38 matches the published sequence for WHV as published by Galibert *et al.*, (1982) *J. Virol.* 41:51-65. Therefore it would be obvious to one of skill in the art that SEQ ID NO:38 could be used as described above by Pumpens (Office Action, pages 7 and 8).

The Examiner is reminded that a *prima facie* case of obviousness requires: (a) some suggestion or motivation (in either the references themselves or in the knowledge of one of ordinary skill in the art) to modify the reference teachings, (b) a reasonable expectation of success, and (c) a teaching or suggestion of all claim limitations (MPEP 2143). Applicants respectfully submit the Examiner has failed to establish all three elements of a *prima facie* case of obviousness.



**(a) No Suggestion or Motivation to Modify the Reference(s)**

The Examiner is also reminded that the mere fact that the reference(s) can be modified does not render the resultant modification obvious, unless the prior art also suggests the desirability of the modification.<sup>4</sup> In the first place, Pumpens simply discloses that there is conservation between the protein sequence of the HBcAg and that of the core proteins of other mammalian hepadnaviruses. However as disclosed by Galibert *et al.*, *Virology*, 41:51-65, 1982 (See, Galibert, Table 1), only 131 of the 188 residues of WHcAg are shared with HBcAg (~ 70% amino acid identity), and only 45% of the 47 amino acid substitutions are conservative changes (substitutions within a group versus polar/nonpolar, uncharged/charged, and basic/acidic substitutions). Importantly, the identity between truncated HBcAg ayw and WHcAg is only about 66% (98 of the 149 amino acid residues are shared), while conservation of the immunodominant loop sequence is virtually non-existent (*e.g.*, 14% corresponding to 1 of 7 shared residues), as can be seen from the sequence alignment provided by Birkett (Birkett, Figure 7A and 7B). Applicants contend that a 66% sequence identity is not sufficient motivation to modify or extrapolate the WHcAg sequence disclosed by Galibert with the recombinant HBcAg particles of Pumpens. Thus, in contrast to the Examiner's assertion, while one of skill in the art may find *HBc subtypes* to be highly conserved, they would *not* find truncated HBcAg and WHcAg proteins to be highly conserved or interchangeable.

In addition, in regards to antigenicity, Applicants teach:

it was not obvious that the WHcAg and the HBcAg would behave similarly as antigens or as immunogens, because the WHcAg and the HBcAg are only approximately 67% conserved at the amino acid level. In addition, the HBcAg and the WHcAg migrate very differently in a 1% agarose gel (See, Figure 4). Furthermore, the WHcAg and the HBcAg do not significantly crossreact at the antibody (B cell) level (See, Figure 6) and are only partially crossreactive at the CD4<sup>+</sup> T helper cell level (See, Figures 7-10). ... Crossreactivity between anti-WHc and anti-HBc antibodies ranged between 0 and 0.8%. Similarly a panel of monoclonal antibodies (mAb) specific for the HBcAg was found to be totally non-crossreactive with the WHcAg when tested for binding to solid phase HBcAg and WHcAg by ELISA. The anti-HBcAg mAb panel included #3105, #3120 (Takashi *et al.*, *J.Immunol*, 130:2903-2911, 1983), C1-5 (Chemicon, Temecula, CA), C3-1, #440 and #442 (Boehringer Mannheim, Germany), and H40-C47. ...

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<sup>4</sup> See, *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Also note the low level of crossreactivity between the WHcAg and the HBcAg [at the Th cell level]. Specifically, the HBcAg required an *in vitro* concentration of 80 ng/ml to recall a proliferative response from WHcAg-primed T cells which amounts to a 666-fold difference from the recall response observed for WHcAg. This result and additional studies indicate that the WHcAg-primed T cells in Balb/c mice (H-2<sup>d</sup>) recognize a site(s) on WHcAg which is not conserved on the HBcAg (Examples 4 and 5 of Specification, from page 89, line 14 to page 92, line 21).

Hence, truncated HBcAg and WHcAg proteins are not well conserved in primary amino acid sequence or in terms of antigenicity.

**(b) No Reasonable Expectation of Success**

Applicants submit that the Examiner has simply set forth an argument that it would be "obvious to try" to develop the presently claimed invention. However, this is a standard that has been thoroughly discredited. "Indeed, an obviousness rejection is inappropriate, where the prior art [gives] either no indication of which parameters [are] critical or no direction as to which of many possible choices is likely to be successful."<sup>5</sup> As described in Section 3 above, prior to development of the combinatorial technology disclosed in the present Application, a significant proportion of hybrid HBcAg (as well as WHcAg) particles could not be produced due to well-known problems in particle expression and assembly (Jegerlehner *et al.*, *Vaccine*, 20:3104-3112, 2002 and Karpenko *et al.*, *Amino Acids*, 18:329-337, 2000).

In addition, a 66% sequence identity in and of itself does not lead to a reasonable expectation of success. The Examiner is reminded to:

consider any teaching or suggestion in the reference for a preferred species or subgenus that is *significantly* different in structure from the claimed species or subgenus. Such a teaching may weigh against selecting the claimed species or subgenus and thus against a determination of obviousness (MPEP, 2144.08.II.A.4(c), emphasis added).

To this end, Birkett teaches away from the claimed invention:

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<sup>5</sup> Quoting *In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988), *Merck & Co., Inc. v. Biocraft Laboratories, Inc.*, 10 USPQ2d 1843, 1845 (Fed. Cir. 1989).

somewhat less preferred are the corresponding amino acid residue sequences of [HBcAg] subtypes adw, adw2 and adyw. . . (SEQ ID NOs:248, 249 and 250). Less preferred still are the sequences of woodchuck and squirrel at aligned positions 1 through 149. . . (SEQ ID NOs:251 and 246). . . When the HBc portion of a chimera molecule . . . has other than a mammalian HBc molecule corresponding to positions 1 through 149, no more than about 20 percent of the amino acid residues are substituted as compared to SEQ ID NO:247 from position 1 through 149. It is preferred that no more than about 10 percent, and more preferably no more than about 5 percent, and most preferably no more than about 3 percent of the amino acid residues are substituted as compared to SEQ ID NO:247 from position 1 through 149 (Birkett, paragraphs 0154 and 0155).

Importantly, SEQ ID NO:38 corresponds to a sequence of a mammalian hepadnavirus that differs from SEQ ID NO:247 in **greater than 20 percent** of the amino acid residues (*e.g.*, significant difference). Thus, one of skill in the art in this field would find that the totality of evidence provides an *inadequate* expectation of success in achieving woodchuck hepatitis virus cores that assemble as hybrid particles, let alone woodchuck hepatitis core particles that are antigenic (reactive with antibodies or T cells), two new limitations that have been added to independent Claim 1.

Also, prior to comparing Applicants' claimed composition to a composition generated by the Examiner's combination of references, the Examiner must show that there is a motivation to combine the references and an expectation of success in carrying out the combination. Short of such a showing, we do not even get to the issue of whether the prior art "combination" compositions are the same as claimed compositions (which Applicants do not admit). Since the requisite motivation and reasonable expectation of success in producing the claimed hybrid WHcAg particles is lacking, the claimed compositions comprising hybrid WHcAg particles are not obvious.

**(c) No Teaching or Suggestion of All Claim Limitations**

Although Applicants respectfully disagree that the claims are obvious, Applicants have amended Claims 6 and 7, in order to further the prosecution of the present application and Applicants' business interests, yet without acquiescing to the Examiner's arguments, and while reserving the right to prosecute the original, similar, or broader claims in one or more future application(s). In particular, Applicants have amended Claim 6 to recite "wherein said

heterologous antigen is inserted at a position chosen from amino acid residues 73, 75, N-terminal or C-terminal,” and Claim 7 to recite “wherein said heterologous antigen is inserted at a position chosen from amino acid residues 44, 71, 72, 74, 83, 84, 85, or 92. Support for these amendments is found in the text of original Claims 6 and 7.

Additionally in regard to Claim 7, both Pumpens and Zlotnick fail to teach or suggest the “insertion of a heterologous antigen at a position chosen from amino acid residues 44, 71, 72, 74, 83, 84, 85 or 92” as required by Claim 7. Similarly in regard to Claims 13-15, both Pumpens and Zlotnick fail to teach or suggest a truncated WHcAg further comprising any of the artificial C-termini recited in Claims 13-15. Accordingly, Applicants respectfully request that these rejections be withdrawn.

## **CONCLUSION**

Applicants believe the amendments and arguments set forth above traverse the Examiner's rejections and, therefore request that a timely Notice of Allowance be issued in this case. However, should the Examiner believe that a telephone interview would aid in the prosecution of this application, Applicants encourage the Examiner to call the undersigned collect.

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Christine A. Lekutis  
Registration No. 51,934

MEDLEN & CARROLL, LLP  
101 Howard Street, Suite 350  
San Francisco, California 94105  
415.904.6500